IDW

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants:	Woody K. Sattayapiwat Tang, George A. Kovall and Yi Ding
Assignee:	Mosel Vitelic, Inc.
Title:	METHODS OF REDUCING OR REMOVING MICROMASKING RESIDUE PRIOR TO METAL ETCH USING OXIDE HARDMASK

Application No.:	10/649,099	Filing Date:	August 26, 2003
Examiner:	Unknown	Group Art Unit:	1098
Docket No.:	M-12977 US	Confirmation No.:	4957

San Jose, California
April 26, 2005

Mail Stop PGPUB
COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, VA 22313-1450

REQUEST FOR A CORRECTED PATENT APPLICATION PUBLICATION UNDER 37 CFR §1.221(b)

Dear Sir:

Applicants hereby request that the above Patent Application be republished pursuant to 37 CFR §1.221(b). The above-referenced application was published as Publication No. US-2005-0048788-A1 on March 3, 2005. This request is being made before the two month non-extendable deadline for requesting republication. Enclosed is a copy of the relevant patent application pages bearing the error in compliance with MPEP §1130.

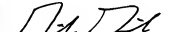
The identified material errors were made by the Patent and Trademark Office. Thus, no fee is required for the Request for a Corrected Publication pursuant to 37 CFR §1.221(b).

MacPherson Kwok Chen & Heid LLP
1762 Technology Drive, Suite 226
San Jose, CA 95110
Telephone: (408) 392-9250
Facsimile: (408) 392-9262

Because this was not an error on the part of Applicants, Applicants believe that no fee is required. However, the Commissioner is hereby authorized to charge any fee which may be required for this correction to Deposit Account No. 50-2257.

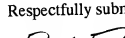
If this action does not lead to the republication of the patent application as requested, please contact the undersigned at (408) 392-9250.

I hereby certify that this correspondence is being deposited with the United States Postal Service as First Class Mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on April 26, 2005.



Attorney for Applicant(s) Date of Signature

Respectfully submitted,



Gideon Gimlan
Attorney for Applicants
Reg. No. 31,955

MacPherson Kwok Chen & Heid LLP
1762 Technology Drive, Suite 226
San Jose, CA 95110
Telephone: (408) 392-9250
Facsimile: (408) 392-9262

of: argon, helium, neon, krypton and nitrogen.

10. The residue reducing method [300] of Claim 8 wherein

(b.2) said subjecting step includes establishing a first inflow rate for the first agent in the range of about 10 sccm to about 50 sccm.

11. The residue reducing method [300] of Claim 10 wherein

(b.3) said subjecting step includes establishing a second inflow rate for the second agent in the range of about 50 sccm to about 150 sccm.

12. The residue reducing method [300] of Claim 11 wherein

(b.2a) said subjecting step includes establishing the first inflow rate for the first agent in the range of about 15 sccm to about 25 sccm; and

(b.3a) said subjecting step includes establishing the second inflow rate for the second agent in the range of about 70 sccm to about 90 sccm.

13. The residue reducing method [300] of Claim 11 wherein

(b.2b) said first agent is chlorine; and

(b.3b) said second agent is argon.

14. The residue reducing method [300] of Claim 8 wherein

(b.2) said subjecting step includes establishing a plasma pressure range of about 2mT to about 15mT.

ARC layer to produce a volatile byproduct [357], the first agent being sufficiently small in size to operatively enter reaction zones of the base anchor portions of the residue nodules and/or fibers so as to react with the first metal element [Ti], if any, in the respective base anchor portions of the residue nodules and/or fibers;

(b) providing into the plasma chamber, a relatively, chemically nonreactive, second agent [354,320] which does not substantially react with the first metal element [Ti] of the metal-containing ARC layer to produce a volatile byproduct [357], the second agent being sufficiently large in mass for physical bombardment purposes to operatively weaken attachments of the base anchor portions of the residue nodules to the interface region [160/252] so as to thereby encourage break away and removal of the residue nodules from the interface region; and

(c) subjecting the residue nodules and/or fibers to an in-chamber plasma [354] including said first and second agents.

22. A patterned monolithic integrated circuit [200'] comprising:

(a) a patterned metal layer [240'] including a metal-containing anti-reflection coating layer (ARC layer) [252'];

(b) a patterned and oxide-based hardmask layer [260'] disposed on the ARC layer, where the pattern of the hardmask layer has been used to pattern the underlying metal layer,